



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,496	09/20/2005	William Campbell	P/63663	9978
156 7590 04/29/2008 KIRSCHSTEIN, OTTINGER, ISRAEL & SCHIFFMILLER, P.C. 489 FIFTH AVENUE NEW YORK, NY 10017				
EXAMINER HO, CHUONG T				
ART UNIT 2619		PAPER NUMBER		
MAIL DATE 04/29/2008		DELIVERY MODE PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/550,496

Applicant(s)

CAMPBELL ET AL.

Examiner

CHUONG T. HO

Art Unit

2619

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 September 2005.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 24-45 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 24-30, 37, 38 and 43-45 is/are rejected.
7) ☒ Claim(s) 31-36 and 39-42 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 03065364.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

1. This office action is in response to the Application SN 10/550,496 filed on 03/12/04. Claim 24-45 are presented for examination.

Priority

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. UNITED KINGDOM 0306536, filed on 03/21/03.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 09/20/05 was filed. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Drawings

3. The drawings are objected to because the figure 1 are not labeled clearly with descriptive terms or subject matters, for instance, Figure 1, the elements 1-4 should be labeled with "network element", the element 9 should be labeled with "Traffic stream controller", the elements 10, 12 should be labeled with "outgoing paths", the elements 11 should be labeled with "incoming paths", the elements 6-7 should be labeled with "Edge switches", the element 8 should be labeled with "Core switch". Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office

action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

4. Claim 43 is objected to because of the following informalities: "CBR" needs to spell out . Appropriate correction is required.
5. Claim 24 is objected to because of the following informalities: "e) to routing traffics from each of the network elements to the network element, the switching means merges each outgoing path carrying traffic streams for the network element onto the incoming path of the network element, and routing of the traffic streams to the network element is controlled by the network element using the traffic stream controller" should

Art Unit: 2619

be replaced by --- e) to routing traffics from each of the network elements to another network element, the switching means merges each outgoing path carrying traffic streams for another network element onto the incoming path of another network element, and routing of the traffic streams to another network element is controlled by another network element using the traffic stream controller ----. Appropriate correction is required.

6. Claims 24-45 are pending.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 24-26, 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Landaveri et al. (Patent No.: US 6,804,228 B2) in view of Puntamberkar et al. (Patent No.: US 6,967,955 B1).

Regarding to claim 1, Landaveri et al. disclose a) a plurality of network elements (figure 5, node controllers (NC) 1, 2, 3) (figure 1, node controller 140);
b) switching means (figure 1, switching stage 130) (figure 5 switching 410);

c) a traffic stream controller (figure 1 , system management platform 170, col. 6, lines 10-18);

d) for each network element, there is provided a set of outgoing paths from the network element (figure 5 node controllers 1, 2, 3) to the switching means (figure 5 switching 410), one of the outgoing paths (figure 5) carrying traffic streams (cells) for each of the network elements (figure 5 node controllers 1, 2, 3) (col. 7, lines 60-65, each node controller 140 is connected to other node controllers in the system through the inter-node switch 410) (figure 5, one outgoing permanent virtual path connect the node controller 1 to node controller 2 through the inter node switch 410, one outgoing permanent virtual path connect the node controller 1 to node controller 3 through the inter node switch 410, one incoming permanent virtual path connect the node controller 2 to node controller 1 through the inter node switch 410, one incoming permanent virtual path connect the node controller 3 to node controller 1 through the inter node switch 410), and an incoming path carrying traffic streams from the switching means (figure 5, inter node switch 410) to the network element (node controllers 1-3) (figure 5, col. 7, lines 60-65, col. 8, lines 18-23, the switching node 410 is configured with permanent virtual paths connecting each node controller to all other node controllers);

e) to route traffic streams (cells) from each of the network element (figure 5, node controllers 1-3) to the network element (figure 5, inter node switch 410), the switching means (figure 5, the inter node switch 410) routes each outgoing paths (figure 5, col. 7, lines 62-63, two outgoing permanent virtual paths to the node controllers 2-3 through the inter node switch 410, col. 7, lines 62-63) carrying traffic streams for the network

element onto the incoming path of the network element. and routing the traffic streams (cells) to the network element (figure 5, the node controllers 1-3) (figure 1, the node controller 140) is controlled by the network element using the traffic stream controller (figure 1, (figure 1 , system management platform 170, col. 6, lines 10-18, the system management platform (SMP) 170 manages the control stage 110, the switching stage 130, and the access stage 150. Essentially, SMP 170 is a personal administrator to configured, administer, monitor, and maintain each network element).

However, Landaveri et al. are silent to disclosing the switching means merges each outgoing paths carrying traffic streams for the network element onto the incoming path of the network element.

Puntambekar et al. disclose the switching means (a root switch) merges each outgoing paths carrying traffic streams for the network element (see abstract, MPT paths from multiple leaf switches are merged to one path with single virtual path identifier terminating at a root) switch) (col. 3, lines 30-32, MPT data traffic from multiple leaf switches is merged to one virtual path, figure 1, figure 10).

Both Landaveri and Puntamberkar discloses Permanent Virtual Path (PVP) trunk crossing an ATM network. Puntamberkar recognizes the switching means merges each outgoing paths carrying traffic streams for the network element. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the switching means merges each outgoing paths carrying traffic streams for the network element taught by Puntamberkar into the system of Landayeri in order to make efficient use of the connection identifiers (see Puntamberkar, col. 3, line 16). Therefore,

the combined system would have been enable upstream switches to establish MPTs on the core network despite the limited VPI space (Puntamberkar, col. 3, line 40).

9. Regarding to claim 25, Landayeri discloses each outgoing path comprises a permanent virtual path (PVP) (figure 5, col. 7, lines 58-62, permanent virtual paths).

10. Regarding to claim 26, Landayeri discloses which each incoming path comprises a permanent virtual path (PVP) (figure 5, col. 7, lines 58-62, permanent virtual paths).

11. Regarding to claim 44, Landayeri discloses in which the switching means comprises at least one switch (figure 1, switching stage) of the telecommunication network.

12. Claims 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combined system (Puntamberkar – Landayeri) in view of Vikberg et al. (Patent No.: US 6,744,768 B2).

Regarding to claim 27, Puntamberkar discloses system management platform 170, col. 6, lines 10-18, the system management platform (SMP) 170 manages the control stage 110, the switching stage 130, and the access stage 150. Essentially, SMP 170 is a personal administrator to configured, administer, monitor, and maintain each network element, figure 1); however, the combined system (Puntamberkar – Landayeri) are silent to disclosing control of routing of the traffic streams to the network element comprises control of usage of bandwidth of the incoming path of the network element.

Vikberg et al. disclose (abstract, Media Gateway Controller (MGC) control of routing of the traffic streams (the bandwidth of incoming MG) to the network element

Art Unit: 2619

(Abstract, Media Gateways) comprises control of usage of bandwidth of the incoming path of the network element (Abstract, one or more Media Gateways that include broadband switching fabric are controlled by a Media Gateway Controller (MGC) that includes switching intelligence and narrowed switching fabric) (figure 12, figure 13, col. 25, lines 62-65, the bandwidth data structure 1300 contains information pertaining to all MGs controlled by the MGC and all traffic trunks (LSPs) interconnecting the MGs. For example, the bandwidth data structure 1300 may contain the following fields 1305: Outgoing MG (Outgoing paths), Incoming MG 1320 (Incoming paths), col. 26, lines 4-6, available field 1330 stores an amount of bandwidth 1335 currently available on the LSPs from the outgoing MG (outgoing paths) to the incoming MG (incoming paths)).

Both Puntamberkar, Landayeri, and Vikerg disclose Broadband network. Vikerg recognizes routing of the traffic streams to the network element comprises control of usage of bandwidth of the incoming path of the network element. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate control of routing of the traffic streams to the network element comprises control of usage of bandwidth of the incoming path of the network element taught by Vikerg into the combined system (Puntamberkar – Landayeri) in order to utilize the quality data to further improve bandwidth allocation efficiency (Vikerg, col. 5, lines 7-8). Therefore, the combined system (Puntamberkar – Landayeri – Vikerg) have been enable to monitor faults in the broadband network (Vikerg, col. 5, line 10).

13. Regarding to claim 28, Puntamberkar discloses system management platform 170, col. 6, lines 10-18, the system management platform (SMP) 170 manages the

control stage 110, the switching stage 130, and the access stage 150. Essentially, SMP 170 is a personal administrator to configured, administer, monitor, and maintain each network element, figure 1); however, the combined system (Puntamberkar – Landayeri) are silent to disclosing in which each network element controls usage of the incoming bandwidth by using information received from the traffic stream controller.

Vikerg discloses in which each network element (figure 12, figure 13, Media Gateways 625) controls usage of the incoming bandwidth (bandwidth of Incoming MG) by using information received from the traffic stream controller (figure 12, figure 13, Media Gateway Controller (MGC) 1215) (col. 26, lines 55-60, the bandwidth data structure 1300 can be stored in the MGC for centralized management of all traffic trunks in the network. The bandwidth data structure 1300 can be distributed in the MGs, in which each particular MG stores only those records associated with traffic trunks interconnected that particular MG with other MGs).

Both Puntamberkar, Landayeri, and Vikerg disclose Broadband network. Vikerg recognizes each network element controls usage of the incoming bandwidth by using information received from the traffic stream controller. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate each network element controls usage of the incoming bandwidth by using information received from the traffic stream controller taught by Vikerg into the combined system (Puntamberkar – Landayeri) in order to utilize the quality data to further improve bandwidth allocation efficiency (Vikerg, col. 5, lines 7-8). Therefore, the combined system (Puntamberkar –

Landayeri – Vikerg) have been able to monitor faults in the broadband network (Vikerg, col. 5, line 10).

14. Regarding to claim 29, Puntamberkar discloses system management platform 170, col. 6, lines 10-18, the system management platform (SMP) 170 manages the control stage 110, the switching stage 130, and the access stage 150. Essentially, SMP 170 is a personal administrator to configured, administer, monitor, and maintain each network element, figure 1); however, the combined system (Puntamberkar – Landayeri) are silent to disclosing in which the information received from the traffic stream controller comprises information concerning bandwidth of each of the traffic streams which the network element is to receive.

Vikerg discloses in which the information received from the traffic stream controller (figure 12, figure 13, Media Gateway Controller) comprises information concerning each of the traffic stream (Bandwidth of Incoming MG) which the network element (Media gateway) is to receive (col. 26, lines 4-6, the bandwidth available field 1330 stores an amount of bandwidth 1335 currently available on the LSPs from the outgoing MG (outgoing paths) to the incoming MG (incoming paths) (col. 26, lines 55-60, the bandwidth data structure 1300 can be stored in the MGC for centralized management of all traffic trunks in the network. The bandwidth data structure 1300 can be distributed in the MGs, in which each particular MG stores only those records associated with traffic trunks interconnected that particular MG with other MGs).

Both Puntamberkar, Landayeri, and Vikerg disclose Broadband network. Vikerg recognizes the information received from the traffic stream controller comprises

information concerning each of the traffic streams which the network element is to receive. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the information received from the traffic stream controller comprises information concerning each of the traffic streams which the network element is to receive taught by Vikerg into the combined system (Puntamberkar – Landayeri) in order to utilize the quality data to further improve bandwidth allocation efficiency (Vikerg, col. 5, lines 7-8). Therefore, the combined system (Puntamberkar – Landayeri – Vikerg) have been enable to monitor faults in the broadband network (Vikerg, col. 5, line 10).

15. Regarding to claim 30, Puntamberkar discloses system management platform 170, col. 6, lines 10-18, the system management platform (SMP) 170 manages the control stage 110, the switching stage 130, and the access stage 150. Essentially, SMP 170 is a personal administrator to configured, administer, monitor, and maintain each network element, figure 1); however, the combined system (Puntamberkar – Landayeri) are silent to disclosing in which the information received from the traffic stream controller comprises information concerning bandwidth of each of the traffic streams which the network element is to receive.

Vikerg discloses in which the information received from the traffic stream controller (figure 12, figure 13, Media Gateway Controller) comprises information concerning bandwidth of each of the traffic stream (Bandwidth of Incoming MG) which the network element (Media gateway) is to receive (col. 26, lines 4-6, the bandwidth available field 1330 stores an amount of bandwidth 1335 currently available on the LSPs from the

outgoing MG (outgoing paths) to the incoming MG (incoming paths) (col. 26, lines 55-60, the bandwidth data structure 1300 can be stored in the MGC for centralized management of all traffic trunks in the network. The bandwidth data structure 1300 can be distributed in the MGs, in which each particular MG stores only those records associated with traffic trunks interconnected that particular MG with other MGs).

Both Puntamberkar, Landayeri, and Vikerg disclose Broadband network. Vikerg recognizes the information received from the traffic stream controller comprises information concerning bandwidth of each of the traffic streams which the network element is to receive. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the information received from the traffic stream controller comprises information concerning bandwidth of each of the traffic streams which the network element is to receive taught by Vikerg into the combined system (Puntamberkar – Landayeri) in order to utilize the quality data to further improve bandwidth allocation efficiency (Vikerg, col. 5, lines 7-8). Therefore, the combined system (Puntamberkar – Landayeri – Vikerg) have been enable to monitor faults in the broadband network (Vikerg, col. 5, line 10).

16. Claims 37-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combined system (Puntamberkar – Landayeri) in view of Okamoto et al. (Patent No.: 6,081,833).

Regarding to claim 37, Puntamberkar discloses control of routing of the traffic streams to the network element comprising an outgoing path carrying the traffic stream

and the incoming path of the network element (system management platform 170, col. 6, lines 10-18, the system management platform (SMP) 170 manages the control stage 110, the switching stage 130, and the access stage 150. Essentially, SMP 170 is a personal administrator to configured, administer, monitor, and maintain each network element, figure 1) (col. 7, lines 60-65, each node controller 140 is connected to other node controllers in the system through the inter-node switch 410) (figure 5, one outgoing permanent virtual path connect the node controller 1 to node controller 2 through the inter node switch 410, one outgoing permanent virtual path connect the node controller 1 to node controller 3 through the inter node switch 410, one incoming permanent virtual path connect the node controller 2 to node controller 1 through the inter node switch 410, one incoming permanent virtual path connect the node controller 3 to node controller 1 through the inter node switch 410).

However, the combined system (Puntamberkar – Landayeri) are silent to disclosing control of routing of the traffic streams to the network element comprises setting up a virtual connection (VC) for each traffic stream.

Okamoto et al. disclose control of routing of the traffic streams (figure 1, call set up server 4, col. 6, lines 15-20) to the network element (figure 1, host computers) comprising setting up a virtual connection (VC) for each traffic stream (col. 6, lines 16-20, a call set up server 4 for controlling a call set up is connected to the ATM switch 3. Note that FIG.1 shows only one call set up server 4 provided a plurality of call set up servers which share the call set up function in the ATM network 2) (col. 11, lines 62-64, the call set up request is sent from the ATM switch 3 to the network management unit

24 on the server side, and a response is returned from the network management unit 24 to the ATM switch) (col. 12, lines 57-60, when a new virtual connection is set up, an identifier such as VPI/VCI which is assigned to this new virtual connection is given from the ATM switch 3).

Both Puntamberkar, Landayeri, and Okamoto disclose ATM network. Okamoto recognizes control of routing of the traffic streams to the network element comprises setting up a virtual connection (VC) for each traffic stream. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate control of routing of the traffic streams to the network element comprises setting up a virtual connection (VC) for each traffic stream taught by Okamoto into the combined system (Puntamberkar – Landayeri) in order to make a communication with a target computer through a ATM network. (Okamoto, col. 3, line 33). Therefore, the combined system would have been enable a high speed data transfer efficiently between memory spaces shared among computers, without requiring a complicated and inefficient communication protocol processing at the computer side (Okamoto, col. 3, line52-53).

17. Regarding to claim 38, Puntamberkar discloses control of routing of the traffic streams to the network element comprising an outgoing path carrying the traffic stream and the incoming path of the network element (system management platform 170, col. 6, lines 10-18, the system management platform (SMP) 170 manages the control stage 110, the switching stage 130, and the access stage 150. Essentially, SMP 170 is a personal administrator to configured, administer, monitor, and maintain each network element, figure 1) (col. 7, lines 60-65, each node controller 140 is connected to other

node controllers in the system through the inter-node switch 410) (figure 5, one outgoing permanent virtual path connect the node controller 1 to node controller 2 through the inter node switch 410, one outgoing permanent virtual path connect the node controller 1 to node controller 3 through the inter node switch 410, one incoming permanent virtual path connect the node controller 2 to node controller 1 through the inter node switch 410, one incoming permanent virtual path connect the node controller 3 to node controller 1 through the inter node switch 410).

However, the combined system (Puntamberkar – Landayeri) are silent to disclosing setting up each VC comprises allocating a VC identifier (VCI) to each VC.

Okamoto discloses setting up each VC comprises allocating a VC identifier (VCI) to each VC (col. 11, lines 62-64, the call set up request is sent from the ATM switch 3 to the network management unit 24 on the server side, and a response is returned from the network management unit 24 to the ATM switch) (col. 12, lines 57-60, when a new virtual connection is set up, an identifier such as VPI/VCI which is assigned to this new virtual connection is given from the ATM switch 3).

Both Puntamberkar, Landayeri, and Okamoto disclose ATM network. Okamoto recognizes setting up each VC comprises allocating a VC identifier (VCI) to each VC. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate setting up each VC comprises allocating a VC identifier (VCI) to each VC taught by Okamoto into the combined system (Puntamberkar – Landayeri) in order to make a communication with a target computer through a ATM network. (Okamoto, col. 3, line 33). Therefore, the combined system would have been enable a

high speed data transfer efficiently between memory spaces shared among computers, without requiring a complicated and inefficient communication protocol processing at the computer side (Okamoto, col. 3, line52-53).

18. Claim 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combined system (Puntamberkar – Landayeri) in view of Koning et al. (Patent No. US 6.125.112).

Regarding to claim 45, disclose the switching means (a root switch) merges each outgoing paths carrying traffic streams for the network element (see abstract, MPT paths from multiple leaf switches are merged to one path with single virtual path identifier terminating at a root) switch) (col. 3, lines 30-32, MPT data traffic from multiple leaf switches is merged to one virtual path, figure 1, figure 10).

However, the combined system (Puntamberkar – Landayeri) are silent to disclosing the outgoing paths carrying traffic stream for the network element are merged in at least one stage using at least one switch of the switching means.

Koning et al. disclose a multistage ATM switch with switching elements with two input/outputs switchable to two other input/outputs. The switch elements are arranged connected to define a matrix with an input stage an output stage and at least one an intermediate state (see abstract). At each stage the requests are merged and propagated to connected switching elements of a next stage (see abstract); comprising:

The outgoing paths are merged in at least one stage using at least one switch of the switching means (abstract, A each stage the requests are merged and propagated to connected switching elements of a next stage) (figure 5, col. 2, lines 23-24).

Both Puntramberkar, Landayeri, and Koning disclose ATM network. Koning recognizes the outgoing paths are merged in at least one stage using at least one switch of the switching means. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the outgoing paths are merged in at least one stage using at least one switch of the switching means into the combined system (Puntamberkar – Landayeri) in order to provide maximum efficiency without buffering (Koning, col. 2, line 13). Therefore, the combined system would have been resulted in a very high efficiency for the system of the multi stage switch (Koning, col. 7, line 32).

19. Claim 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combined system (Landayeri – Puntamberkar) in view of Cao (Patent No. US 6,865,179)

Regarding to claim 43, the combined system (Landayeri – Puntamberkar) disclose the limitations of claim 24 above; however, the combined system Landayeri – Pantamberkar) are silent to disclosing in which the telecommunication network routes CBR traffic streams.

Cao discloses in which the telecommunication network routes CBR traffic streams.(col. 2, lines 59-62, ATM CBR traffic).

Both Landayeri, Puntamberkar, and Cao disclose the ATM network. Cao recognizes in which the telecommunication network routes CBR traffic streams. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate in which the telecommunication network routes CBR traffic streams taught by Cao into the combined system (Landayeri - Puntamberkar) in order to provide efficient use of STM and ATM switch fabrics, the over bandwidth of the switch, and buffers used for access to the switch (Cao, col. 2, lines 56-57).

Allowable Subject Matter

20. Claims 31-33, 34-36, 39-42 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

21. The following is an examiner's statement of reasons for allowance:

22. Claim 31 is objected. The prior art (6744768) discloses (abstract, Media Gateway Controller (MGC) control of routing of the traffic streams (the bandwidth of incoming MG) to the network element (Abstract, Media Gateways) comprises control of usage of bandwidth of the incoming path of the network element (Abstract, one or more Media Gateways that include broadband switching fabric are controlled by a Media Gateway Controller (MGC) that includes switching intelligence and narrowed switching fabric) (figure 12, figure 13, col. 25, lines 62-65, the bandwidth data structure 1300 contains information pertaining to all MGs controlled by the MGC and all traffic trunks (LSPs) interconnecting the MGs. For example, the bandwidth data structure 1300 may

contain the following fields 1305: Outgoing MG (Outgoing paths), Incoming MG 1320 (Incoming paths), col. 26, lines 4-6, available field 1330 stores an amount of bandwidth 1335 currently available on the LSPs from the outgoing MG (outgoing paths) to the incoming MG (incoming paths)).

However, the prior art fails to disclose in which each network element uses the information received from the traffic stream controller to calculate the aggregate bandwidth of any traffic streams being carried on the incoming path of the network element and each of the traffic streams which it is to receive.

Claim 39 is objected. The prior art (6081833) discloses control of routing of the traffic streams (figure 1, call set up server 4, col. 6, lines 15-20) to the network element (figure 1, host computers) comprising setting up a virtual connection (VC) for each traffic stream (col. 6, lines 16-20, a call set up server 4 for controlling a call set up is connected to the ATM switch 3. Note that FIG.1 shows only one call set up server 4 provided a plurality of call set up servers which share the call set up function in the ATM network 2) (col. 11, lines 62-64, the call set up request is sent from the ATM switch 3 to the network management unit 24 on the server side, and a response is returned from the network management unit 24 to the ATM switch) (col. 12, lines 57-60, when a new virtual connection is set up, an identifier such as VPI/VCI which is assigned to this new virtual connection is given from the ATM switch 3); However, the prior art fails to disclose in which allocating a VCI to each VC comprises the network element choosing a VCI for each VC.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHUONG T. HO whose telephone number is (571) 272-3133. The examiner can normally be reached on 8:00 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, EDAN ORGAD can be reached on (571) 272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Art Unit: 2619

04/20/08

/CHUONG T HO/
Temporary Partial Signatory, Art Unit 2619